

IV Table Maintenance Coding Procedures

To provide flexibility in meeting the needs of agencies, CALSTARS is designed as a "table-driven" system. The specific accounting structure and processing logic is controlled through tables, which are maintained by each agency. CALSTARS responds to new and changing information requirements through the maintenance of these tables. Descriptions of most of the CALSTARS tables and procedures for preparing and entering table maintenance are contained in this chapter. The five tables related to the Labor Distribution Subsystem are discussed in Volume 2, Chapter VI.

Statewide Tables are maintained by CALSTARS staff. These include the Transaction Code Decision Table (Volume 5), the Error Code Table (Volume 4), and certain Descriptor Tables that are included in this chapter.

Table maintenance transactions are entered through online screens, as described in this chapter, or through external transactions. External transactions may be created by agencies using spreadsheet or database software on a personal computer and electronically uploaded to CALSTARS. To learn more about processing external transactions, please call (916) 445-0211, extension 2811, and ask for the System Support Unit Manager.

Below is a list of the CALSTARS tables and their corresponding descriptions. Each table is commonly referred to by its 2-letter abbreviation, which is shown in parentheses.

- ✧ Appropriation Symbol (AS) Table -- contains descriptive data for each appropriation available to an agency and indicators that define the type and level of appropriation control.
- ✧ Budget Sequence (BS) Table -- contains data elements and codes used to control the posting and sequencing of budgetary financial transactions in CALSTARS.
- ✧ Cost Allocation (CA) Table -- contains data elements and codes used to control the Cost Allocation subsystem.
- ✧ Descriptor (DT) Tables -- contains descriptive information for all codes such as program, element, component, task, and agency object.
- ✧ Index Code (IC) Table -- contains the descriptive data that identifies an agency's internal organizational structure.
- ✧ Organization Control (OC) Table -- contains organizational classification data and indicators that enable the structure of CALSTARS to be tailored to meet each agency's requirements.

- ✧ Program Cost Account (PA) Table -- contains descriptive data that identifies an agency's program structure and funding sources.
- ✧ Project Control (PC) Table -- contains descriptive data and control information for each project, contract or Federal grant. The Project Control Table is based on inception-to-date rather than State fiscal year. Control data includes beginning and end dates and several posting and control level indicators.
- ✧ Vendor Edit (VE) Table -- contains name, address and tax identification number for vendors who do business with the agency. Also, it contains employee records for those who may receive payments (other than payroll) from an agency. Vendor numbers are unique to each agency.

Tables for Automated Payables are discussed in Volume 1, Chapter XXI.

TABLE PROCESSING

Table Updating

CALSTARS tables may be updated through an online or an overnight process. All CALSTARS tables are being converted incrementally from an overnight process to an online process. These processes are explained below.

Online – Table records are updated as they are successfully entered. The online input process edits transactions as they are entered. Online updating allows agencies to immediately use new or modified records.

Currently, the following tables are updated online:

- ✧ Budget Sequence (BS) Table
- ✧ Vendor Edit (VE) Table, and
- ✧ All Labor Tables except the LC Table

Overnight – Table records are updated during the CALSTARS nightly processing if they are successfully entered and have no fatal edits.

The following tables are currently updated overnight:

- ✧ Appropriation Symbol (AS) Table
- ✧ Cost Allocation (CA) Table
- ✧ Descriptor (DT) Tables
- ✧ Index Code (IC) Table
- ✧ Program Cost Account (PA) Table

✪ Project Control (PC) Table

Note: All table maintenance transactions submitted externally, whether for online or overnight tables, are updated during the overnight process.

The Organization Control (OC) Table is unique. It is updated at various times throughout the day and again during the nightly processing cycle.

Table Relationships

Most of the tables listed above are interrelated. Data contained in one table is edited against another for validity. Therefore, it is important that CALSTARS tables are established and processed sequentially according to table hierarchy. If table maintenance is not done in the correct order, online error messages are received and subsequent table additions and changes may not be accepted for processing. For example, the BS Table is immediately available as soon as it passes all edits. However, the Budget Sequence Table contains data elements that must be established in other Descriptor Tables. Since the Descriptor Tables currently process overnight, the Descriptor Table transactions must be successfully entered at least a day prior to the BS Table entries.

Overnight Table Processing Sequence

Because of the table relationships discussed above, tables are processed during the overnight process in the order listed below. This sequence applies to both tables updated overnight and tables updated by externally submitted transactions.

1. **DT - Descriptor Table;**
2. **OC - Organization Control Table;**
3. **IC - Index Code Table;**
4. **VE – Vendor Edit Table**
5. **AS - Appropriation Symbol Table;**
6. **PC - Project Control Table** (PC tables that include a Credit PA must *exclude* the table lookup until the PA record is loaded)
7. **PA - Program Cost Account Table** (PA tables that include a PC 'lookup' must *exclude* the table lookup until the PC record is loaded); and
8. **CA - Cost Allocation Table.**

Overnight Function Processing Sequence

The functions for table maintenance transactions are processed in the order listed below.

1. **Delete a Funding Fiscal Year (Function X);**

2. **Delete** (Function **D**);
3. **Add** (Function **A**);
4. **Change** (Function **C**);
5. **Generate a Funding Fiscal Year** (Function **G**);
6. **Print a Funding Fiscal Year** (Function **S**); and
7. **Print** (Function **P**)

TABLE MAINTENANCE FUNCTIONS

Table maintenance is accessed through Command **I** on the CALSTARS Main Menu. Authority for accessing the functions is based on the user signon. The authorized functions are highlighted on the screen.

The following function descriptions apply to tables that are updated during overnight processing. Detailed discussion and procedures for each online table is covered separately in each chapter in this volume.

The functions and 'F' keys on each table screen are displayed in the order and format shown below.

(**A**=ADD, **C**=CHNG, **D**=DEL, **G**=GEN, **P**=PRT, **S**=PRT FFY, **X**=DEL FFY, **F5**=VIEW MASTER, **F6**=RECALL MAINT, **F10**=DEL MAINT)

Add (A=ADD)

Creates a new table record. Key the letter **A** in the Function field and the appropriate values in both the table control key fields and the informational data element fields. A field may be left blank if it is not required. The **TAB** keys move the cursor from field to field through the screen. When all data is entered on the screen, press **Enter**. If the transaction passes all online edits, the transaction is accepted for overnight processing. A new screen will appear with blank data fields, and a message confirming that the transaction was successfully written displays at the bottom of the screen.

If it is necessary to modify a transaction, refer to the *F6-Recall Maint* section for further instructions.

Change (C=CHNG)

Changes an existing table record. Changes cannot be made to the record key field(s).

NOTE: Some tables require the master record be "viewed" (**F5** key) before making a change.

There are three methods for entering a **Change** transaction:

- 1 For accuracy and efficiency, **View (F5 key)** the master record before entering a **Change** transaction. To enter a **Change** transaction after viewing the master record, key Function **C** and key over fields that need to be changed. Only the fields that are actually key-entered are accepted in the **Change** transaction. All other fields are merely displayed on the viewed master record screen. If a field is re-keyed with the *same* data contained in the master record, the field will be blank (as if no maintenance occurred for that field) when the transaction is viewed using **Recall Maintenance (F6 key)**.
- 2 Because more edits are performed on an **Add** function than on a **Change** function, agencies may use the **Add** function to make a change. To use this method, **View (F5 key)** the master record, make any desired changes, enter an **A** in the function field, and press **Enter**. Then delete the obsolete record by keying a **D** in the function field, entering the table control key information, and pressing **Enter**. **Delete** transactions are processed before **Add** transactions.
- 3 Key the letter **C** in the Function field, the appropriate values in the table control key fields and the new or changed values in the informational data element fields. The unaffected fields may be tabbed through (or by-passed). After all data is entered on the screen, the transaction can be released for processing by pressing the **Enter** key. If the transaction successfully passes all online edits, a new screen will appear with blank data fields and a message confirming that the transaction was successfully written will show at the bottom of the screen.

If it is necessary to modify a **Change** transaction, refer to the *F6-Recall Maint* section for further instructions.

If two or more **Change** table maintenance transactions are entered for the same record during the same processing cycle, only the last **Change** entered updates the table. For example, if a **Change** transaction is entered at 11:00 AM and a **Change** transaction is entered for the same table record at 2:00 PM, only the 2:00 PM transaction is processed. If two or more OC Table **Change** transactions are entered for the same record during the same cycle, i.e., between updates, only the last one entered updates the table.

Delete (D=DEL)

Deletes a table record. Key the letter **D** in the Function field and the appropriate values in the table control key field(s). For **Delete** transactions, only the control key data may be entered for most tables. The informational data fields in the record must be blank. After all data is recorded on the screen, the transaction may be released for processing by pressing the **Enter** key. If the transaction successfully passes all online edits, a new screen will appear with blank data fields and a message confirming that the transaction was successfully written will show at the bottom of the screen.

Generate (G=GEN)

WARNING: Before using the Generate function, review the *Establish New Year Tables* section of Volume 7, Chapter I.

Generates a duplicate of the table records for the new Funding Fiscal Year (FFY). **Generate** can be used to either create a single table entry in the new FFY or to create all entries for an entire FFY:

- ✪ To **Generate** all the table records for the entire FFY, enter only the Function **G** and the current FFY.
- ✪ To **Generate** a specific table entry, enter the Function **G** and the key of the table entry, e.g., for a CA Table, enter the current FFY, Index Code and PCA (works similar to an **Add** transaction).

Enter the Funding Fiscal Year of the existing table record(s), not the Funding Fiscal Year for the new year.

Most tables have an Active/Inactive indicator. Inactive table entries are generated into the new year as Inactive. Active table entries are generated as Active.

All generated table records are fully edited. Establishing a table through the **Generate** function is the same as creating entries through the **Add** function, **EXCEPT** a **Generate** table record will always post and the error message (if any) is a warning and is only printed once.

If tables are not created/generated in the order specified in Volume 7, Chapter I, edit errors may occur and extensive 'ZZ1-TABL POSTED W/ERROR' messages may be displayed. These are warning messages only and will be printed only once.

Print (P=PRT)

Prints a listing of all table records for all funding fiscal years. Key a **P** in the function field and press **Enter** to ROPE a listing of all table records to an agency printer. The table is available for printing the next day. The list reflects the table status after all maintenance transactions have been processed. The Descriptor Table may be obtained only by requesting a listing of each of the sub-tables, by table number.

Table records for a specific FFY instead of all FFYs may be ROPED to an agency printer. See = PRT FFY, below for more details.

Sometimes a printed copy of the data displayed on the terminal screen is sufficient. The 'Screen Print' function key(s) on the terminal is used for this purpose.

Print Specific FFY (S=PRT FFY)

Prints a listing of table records for a specific Funding Fiscal Year (FFY). Key an **S** in the function field and the desired FFY in the FFY field to ROPE a listing of table records for the specified year to an agency printer. The table is available for printing

the next day. Up to five FFYs may be selected for printing each processing day. Each FFY request produces a separate listing. When Function **S** is entered successfully, the message

021-TRANSACTION WRITTEN...PRINT FFY
REQUESTED **nn, nn, nn, nn, nn**

is displayed at the bottom of the screen and the FFY(s) are listed in the order they were entered. The **nn** = the FFY.

The table request is rejected if the FFY was previously requested or if more than five FFY print requests are made. One or more of the FFY print requests can be deleted with the **F10** key so that higher priority FFYs may be requested.

Delete Specific FFY (X=DEL FFY)

Deletes all table records for the FFY specified ('global delete'). Key an **X** in the function field, the desired FFY in the FFY field, and press **Enter** to delete the records for the specified year. To keep certain table records when Function **X** is used, view each record to be saved and use the **Add** function during the same processing day. Function **X** transactions are processed prior to the deletion of individual table records using Function **D**. The following message and the FFY to be deleted are displayed at the bottom of the screen. The **nn** = the FFY.

021-TO CONFIRM DELETION, PRESS F4; OR
PRESS F9 TO CANCEL REQUEST FOR FFY **nn**

The transaction will only be accepted by pressing the **F4** key. If the transaction successfully passes all online edits, a new screen will appear with blank data fields and a message confirming that the transaction was successfully written will show at the bottom of the screen.

If the **F9** key is pressed, no message appears.

CAUTION: Do not delete table records that may be needed to liquidate documents.

NOTE: CALSTARS does not allow a 'global delete' of the Index Code, Appropriation Symbol, Program Cost Account or Cost Allocation tables for the **current** and the **two prior funding fiscal years**.

When Function **X** is used, a separate table maintenance activity report, CFB9n0-3, is produced that displays all deleted table records.

View Master Record (F5=VIEW MASTER)

Views selected table records on file. 'View Master' is accessed by keying the table control key and pressing **F5**. Records viewed with the **F5** key have passed all system edits and are used by CALSTARS for processing. Once the table record is displayed, the **Change** function may be used if needed.

When viewing a record, a date is displayed in the upper right hand corner of the screen. This is the date of the most recent maintenance to that table record. If there is no last process date, "**NO DATE**" is displayed.

Scrolling Through Master File Records using **F7** and **F8** keys: Table scrolling facilitates quick location and viewing of a table record. Once the exact record is found and displayed, it may be used in a table maintenance transaction. The following tables have the capability for scrolling through master records: AS, BS, CA, DT, IC, PA, PC and VE.

The function keys **F7**-Previous Record and **F8**-Next Record may be used any time to move to the previous/next record.

The Descriptor Table provides scrolling between all agency tables (e.g., between Table 02 and 03, etc.) and between the specific table records. A specific table number or table key is not required to scroll with the **F7** or **F8** keys. However, scrolling is more efficient if the table number and a specific record key are used.

Recall Maintenance Transaction (F6=RECALL MAINT)

Recalls a table maintenance transaction previously entered that day. A transaction entered earlier the same day may be recalled by keying the function (**X**, **D**, **A**, **C**, **G**, **S** or **P**) previously entered, the table control key required for the function, and pressing the **F6** key. Once displayed, the maintenance transaction may be modified and then reentered, or the maintenance transaction may be deleted by pressing the **F10** key. (See F10 = DEL MAINT, below.) Only table maintenance transactions entered during the current processing day may be recalled.

If modifying a recalled **Add** transaction:

Key over, add and/or erase information on the screen and press **Enter**. The transaction is treated as a new **Add** transaction and is subject to all online edits. If the transaction successfully passes all online edits, a new screen appears with blank data fields and a message at the bottom of the screen confirms that the transaction was successfully changed.

If modifying a recalled **Change** transaction:

Key over, insert and/or erase information on the screen, and press **Enter**. The transaction is treated as a new **Change** transaction and is subject to the same online edits as the original **Change** transaction. If the transaction successfully passes all online edits, the new record over-writes the old record, a new screen appears with blank data fields, and a message at the bottom of the screen confirms that the transaction was successfully changed.

Scrolling Through Table Maintenance Transactions: Table scrolling assists in quickly locating a maintenance transaction record. Once the desired record is found and displayed, it may be used in a table maintenance transaction. The following tables have the capability for scrolling through table maintenance records: AS, CA, DT, IC, PA, and PC.

The table maintenance transactions within each table are sorted first by function (**X**, **D**, **A**, **C**, **G**, **S** and then **P**), and are then sorted in alphanumeric ascending order.

The function keys **F7**-Previous Record and **F8**-Next Record may be used at any time after a function is entered to move to the previous/next maintenance record.

Delete Maintenance Transaction (F10=DEL MAINT)

Deletes any maintenance transaction that was entered since the last table maintenance update. No record will exist on a shadow file or in any transaction report. A guide to using the **F10** key is displayed in the table below.

To delete a maintenance transaction, enter the function and the Table Key (if required) as shown below; then press **F10**:

Table	Table Key:		
	Functions A, C, D & G	Functions G & S	Function P
Appropriation Symbol	FFY and AS	FFY	Blank
Cost Allocation	FFY, IC, and PCA	FFY	Blank
Index Code	FFY and IC	FFY	Blank
Program Cost Account	FFY and PCA	FFY	Blank

GENERAL TABLE ENTRY PROCEDURES

The Table Maintenance Inquiry screens are accessed through Command I – Table Maintenance/Inquiry on the CALSTARS main menu. Many of the table maintenance procedures and processing requirements are standard for all CALSTARS tables.

The input screen format for each table is similar to the corresponding input form.

Table Data Entry Steps

The table data entry process for table maintenance transactions requires five steps:

- ✧ Access the appropriate table from the Table Maintenance/Inquiry submenu;
- ✧ Enter the desired maintenance function (A, C, D, etc.);
- ✧ Enter the table control key; and
- ✧ Enter the informational elements, if required, and
- ✧ Press the **Enter** key.

Error Detection and Correction

After the **Enter** key has been pressed to release the transaction to CALSTARS, several online edits are performed. Up to three error messages may be displayed at the bottom of the data entry screen. The fields containing errors are highlighted on the screen. Each error message consists of a three-character error code and a

description of the error. The error codes generated by the online table maintenance data entry process are defined in Volume 4.

When online error messages occur, an error code and its corresponding error message displays on the input screen. Errors detected online during data entry should be corrected immediately. The field(s) in error should be corrected and the maintenance transaction re-entered, except when table records were created through the **Generate** function. If a maintenance transaction cannot be corrected on the screen, the transaction may be cleared from the screen by pressing the **F9** key.

Maintenance transactions for online tables are fully edited at the time of input. If no online errors are detected, the maintenance transactions are immediately updated in CALSTARS.

Maintenance transactions for overnight tables are first submitted for online editing. They are subjected to additional 'batch' edits during the overnight process. If a maintenance transaction passes the online edits, a new screen with blank data fields and a confirmation message is displayed at the bottom of the input screen.

Maintenance transactions for overnight tables may be modified any number of times during the day by using the **F6-RECALL MAINT** function. Each time the **Enter** key is pressed, the modified transaction is subjected to the online data edits. When a transaction no longer has online edits, a new screen appears with blank data fields and a message at the bottom of the screen confirms that the transaction was successfully changed.

Maintenance transactions for overnight tables that pass the online edit process may subsequently fail an edit during the updating process (batch edit process) of the CALSTARS tables. These errors are printed on the Table Maintenance Edit Activity reports, which are automatically produced at the end of each update (overnight) cycle. The error codes and messages are defined in Volume 4.

Coding and Entering Year Fields

Many of the tables contain date or year fields, such as, Funding Fiscal Year (FFY) and start and end dates. Year values are maintained in the system files in 4-digit format, however, some year fields require a two digit year code for input and inquiry on the online screens. The 2-digit year codes used on the screens are translated to 4-digit year codes as follows: 2-digit year codes **00** through **20** are appended with the century code **20**; and, 2-digit year codes **21** through **99** are appended with the century code **19**. For example, to establish an Appropriation Symbol (AS) table record for Funding Fiscal Year (FFY) 2000, code **00** would be entered in the FFY field on the AS table screen. If the appropriation in this example reverts on 6/30/2005, the REVERSION DATE field on the AS table screen (in the *MMDDYYYY* format) would be entered as **06302005**. However, the START DATE and END DATE fields in the PC Table are in the *MMDDYY* format. This same date would be entered as **063005**.

Other Considerations

Two transactions with the same control key may be entered accidentally. This may occur, for example, when there is an interruption in the data entry activity immediately after a transaction was entered and the same transaction is entered again when the data entry activity resumes. When CALSTARS detects a duplicate table key for table maintenance transactions performed during the nightly batch process, it over-writes the first transaction with the second transaction. In this situation, the screen will show that the table maintenance transaction has been 'Changed' rather 'Written'. Online table maintenance transactions are processed in the order that they are submitted.

If a maintenance transaction is accidentally re-entered, check it carefully for function and data validity.

The **F11** key works like the **Next** function that is used on other transaction entry screens. Pressing the **F11** key retains the information on the screen for the next entry.

Pressing the **F12** key rather than the **Enter** key returns to the Main Menu without entering or saving the transaction.

Batch Edit Functions

All table maintenance errors (except **G**-Generated table transactions) detected through the nightly system update process are classified as 'Fatal'. **Add** transactions with fatal errors are never accepted as a part of a table list. No record is kept beyond the one-time printing of the table transaction activity report with the error message(s). The only provision for 'correcting' an erroneous table transaction is to completely re-key it. When a **Change** or **Delete** transaction fails the batch edit, the record being changed or deleted remains the same as it was prior to performing table maintenance.

TABLE MAINTENANCE LOG

A control log should be kept for all table maintenance. The Table Maintenance log(s) and activity reports should be kept as long as the related financial records. The various Table Activity reports shown throughout this chapter must be reconciled to the Table Maintenance Log to ensure that each table is properly updated. The Table Maintenance Log, CALSTARS 20, is shown in Exhibit IV-1.

EXHIBIT IV-1

CALSTARS 20

STATE OF CALIFORNIA

TABLE MAINTENANCE LOG

TABLE _____

PAGE _____

DATE	NO. OF TRANSACTIONS	PREPARED BY	COMMENTS	VERIFIED BY	DATE	COMMENTS